

Docket No. AUS920030466US1

ABSTRACT OF THE DISCLOSURE

**DEVICE ADDRESS LOCKING TO FACILITATE OPTIMUM USAGE OF THE
INDUSTRY STANDARD IIC BUS**

A mechanism is provided for locking an end device for the period of time that the device is needed, thus disabling access by any other application or process. Having the device locked, rather than the bus, allows other applications to use the bus to access other devices at the same time. This is achieved by providing a virtual bus arbitration, which arbitrates applications' use of the physical bus. The virtual bus arbitration algorithms allow bus operations from different applications to overlap on the physical bus as long as their target devices and associated bus locks are on different end devices.